

CLAIMS

1. A rotor assembly for an electric device comprising:
 - a hub fixedly connectable to a crankshaft of an engine;
 - a rotor fixedly connected to said hub for operational engagement with a stator of the electric device; and
 - an elastomeric material disposed between and interconnecting said hub and said rotor to provide torsional dampening.
2. The rotor assembly of claim 1 wherein said hub includes an inner diameter sized to allow said hub to be press fit onto an end of the crankshaft and held thereto by a bolt threaded into the end of the crankshaft.
3. The rotor assembly of claim 1 wherein said hub includes an outer flange and said rotor is attached to said outer flange with threaded fasteners spaced radially about said hub.
4. The rotor assembly of claim 1 wherein said hub includes an outer flange and said rotor includes an inner diameter, said outer flange and said inner diameter being sized to allow said rotor to be press fit onto said outer flange and held securely thereto.
5. An electric device mountable to a vehicle drivetrain, wherein the drivetrain includes an engine, a crankshaft extending from within the engine on a front side, and a transmission, said electric device comprising:
 - a hub fixedly connectable to the crankshaft of the engine on the front side opposite the transmission;
 - a stator mountable to the engine independently of the crankshaft;
 - a rotor fixedly connected to said hub and disposed within said stator for operational engagement with said stator; and

an elastomeric material disposed between and interconnecting said hub and said rotor to provide torsional dampening.

6. The electric device of claim 5 wherein said electric machine has a first mode of operation as an electric starter for the engine, and a second mode of operation as a generator.

7. The electric device of claim 6 wherein said hub includes an inner diameter sized to allow said hub to be press fit onto an end of the crankshaft and held thereto by a bolt threaded into the end of the crankshaft.

8. The electric device of claim 5 wherein said hub includes an outer flange and said rotor is attached to said outer flange with threaded fasteners spaced radially about said hub.

9. The electric device of claim 5 wherein said hub includes an outer flange and said rotor includes an inner diameter, said outer flange and said inner diameter being sized to allow said rotor to be press fit onto said outer flange and held securely thereto.

10. A drivetrain for a motor vehicle comprising:

an engine including a crankshaft for transferring power therefrom;

a transmission coupled to said engine;

an electric device mounted to said engine opposite said transmission, said electric device including a hub fixedly connected to said crankshaft, a stator mounted to said engine independently of said crankshaft, a rotor fixedly connected to said hub and disposed within said stator for operational engagement with said stator, and an elastomeric material disposed between and interconnecting said hub and said rotor to provide torsional dampening.

11. The drivetrain of claim 10 wherein said electric machine has a first mode of operation as an electric starter for said engine, and a second mode of operation as a generator.

12. The drivetrain of claim 10 wherein said hub is press fit onto an end of the crankshaft and held thereto by a bolt threaded into the end of the crankshaft.

13. The drivetrain of claim 11 wherein said hub includes an outer flange and said rotor is attached to said outer flange with threaded fasteners spaced radially about said hub.

14. The drivetrain of claim 10 wherein said hub includes an outer flange and said rotor includes an inner diameter, said outer flange and said inner diameter being sized to allow said rotor to be press fit onto said outer flange and held securely thereto.